

Name: \_\_\_\_\_

Date: \_\_\_\_\_

### Factoring Polynomials via GCF

**Part One:** Factor each polynomial as completely as possible. If the polynomial cannot be factored, write *unfactorable*.

1. $4x^2 + 2x$	2. $16y - 32$	3. $10x^3 - 20x^2 + 5x - 5$
4. $20x^2y + 4xy$	5. $18y + 16b$	6. $26y^5 - 13y^4 + 26y^3 - 13y^2$
7. $17x^2 - 15$	8. $12a - 8$	9. $30x^2y^4 + 50xy^3 - 20xy$

**Part Two: Polynomial Review:** Simplify each polynomial expression. Write your final answers in simplified, standard form (SSF). Then, NAME (N) the polynomial.

<p>10. <math>5x - 3 + 2x - 7 - 10x</math></p> <p>SSF: _____</p> <p>N: _____</p>	<p>11. <math>5y(2y^2 - 3y - 1)</math></p> <p>SSF: _____</p> <p>N: _____</p>
<p>12. <math>3a^2 + 9a - 12</math>  <math>-(-10a - 3a^2 + 10)</math></p> <p>SSF: _____</p>	<p>13. <math>19g - 12g^2 + g^3 - 7</math>  <math>+ (8 - g^3 + 17g^2 - 11g)</math></p> <p>SSF: _____</p>

N: _____	N: _____
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**CHALLENGE:** Sketch and label a rectangle whose area can be written as the expression  $60x^5 - 35x^2$ .